

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

690 Walnut Ave.St. 150

Vallejo, CA 94592-1133

(707) 649-5453

(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-028829**Date Inspected:** 21-Nov-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

CWI Name:	Bernie Docena and William Sherwood			CWI Present:	Yes	No
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No N/A
				Delayed / Cancelled:	Yes	No N/A
Bridge No:	34-0006			Component:	SAS OBG	

Summary of Items Observed:

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At OBG 12E-E2.1-C corner drop-in side plate inside, QA randomly observed ABF/JV welder Mike Jimenez continuing to perform CJP groove welding repair at various Y locations. The repair welding is being performed as a continuation from the repair that were made from outside per Caltrans approved Request for Weld Repair (RWR) #201210-013. The welder was observed manually welding in the 1G (flat) position utilizing Shielded Metal Arc Welding (SMAW) with 4.0mm diameter E7018H4R electrode implementing Caltrans welding procedure ABF-WPS-D15-1004 Repair. The second time repair excavation was preheated to more than 225 degree Fahrenheit using Miller Proheat 35 Induction Heating System with the heater blanket put in place on top of the side plate prior excavation. During the shift, ABF QC William Sherwood was noted monitoring the welder with measured working current of 130 amperes on the 3.2mm E7018H4R electrode and adjusted preheat temperature of 325°F during welding. During the shift, the welder has not completed the welding repair mentioned above but performed the Post Weld Heat Treatment (PWHT) of 450°F and held it for one (1) hour after welding as required. The locations and dimensions of the repair excavations are as follows; 1. Y=12650mm, L190mm, W25mm, D11mm, RWR#201210-013, R2- in progress. 2. Y=12500mm, L100mm, W20mm, D10mm, RWR# 201210-013, R2- in progress. 3. Y=13510mm, L100mm, W20mm, D9mm, RWR# 201210-013, R2- excavated. 4. Y=13680mm, L100mm, W22mm, D13mm, RWR #201210-013, R2- excavated. 5. Y=13830mm, L65mm, W20mm, D4mm, RWR #201210-013, R2- excavated.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

At OBG 12W-W2.1-C1.1 corner drop-in side plate outside, QA randomly observed ABF/JV welder Ric Chouinard perform CJP groove welding repair at various Y locations. The repair welding is being performed per Caltrans approved Request for Weld Repair (RWR) #201211-005. The welder was observed manually welding in the 4G (overhead) position utilizing Shielded Metal Arc Welding (SMAW) with 4.0mm diameter E7018H4R electrode implementing Caltrans welding procedure ABF-WPS-D15-1004 Repair. The first time repair excavation was preheated to more than 225 degree Fahrenheit using Miller Proheat 35 Induction Heating System with the heater blanket put in place on top of the side plate prior excavation. During the shift, ABF QC Salvador Merino was noted monitoring the welder with measured working current of 126 amperes on the 3.2mm E7018H4R electrode and adjusted preheat temperature of 325°F during welding. During the shift, the welder has not completed the welding repair mentioned above but performed the Post Weld Heat Treatment (PWHT) of 450°F and held it for one (1) hour after welding as required. The locations and dimensions of the repair excavations are as follows; 1. Y=30850mm, L270mm, W50mm, D10mm, RWR #201211-005, R1- in progress. 2. Y=29800mm, L100mm, W55mm, D10mm, RWR #201211-005, R1- in progress. 3. Y=30000mm, L660mm, W55mm, D10mm, RWR #201211-005, R1- excavated.

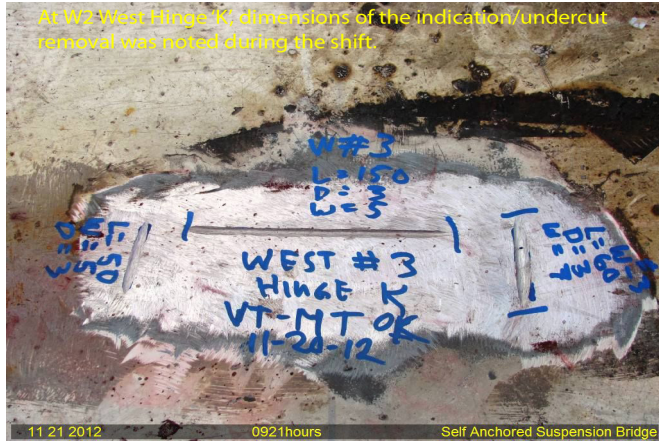
At W2 Hinge 'K' West bound, QA randomly observed ABF/JV welder Jin Quan Huang perform ASTM A709 Grade 485W base metal repair on the Hinge 'K' box due to undercut that was previously welded on lifting lug temporary attachment. This base metal repair is being welded per Caltrans approved Request for Weld Repair (RWR) # 201211-033 dated November 14, 2012. The welder was noted welding in 1G (flat) position utilizing Shielded Metal Arc Welding (SMAW) with 3.2mm diameter E9018H4R electrode implementing Caltrans welding procedure ABF-WPS-D15-1002 Repair. The welder was also noted performing the base metal repair at Lift Lug # 1 and 3. Prior welding, the welder excavated the lifting lug temporary attachment removal undercut/indications using a disc grinder. ABF QC Bernie Docena was noted on site verifying the complete removal of the undercut/indications using Magnetic Particle Testing (MT). After the removal and MT verification from ABF QC, this QA performed the same test (MT) and noted same result.

The welder preheated the A709 Grade 485W base plate to 225°F using propylene gas torch. After attaining the required preheat and verification from ABF QC, the welder started SMAW welding the base metal repair. During the shift, the welder has completed the repair at West Hinge 'K' Lift Lug # 1 and 3.



WELDING INSPECTION REPORT

(Continued Page 3 of 3)



Summary of Conversations:

No significant conversation occurred today.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

Inspected By: Lizardo, Joselito

Quality Assurance Inspector

Reviewed By: Reyes, Danny

QA Reviewer